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IDENTIFIER: TITLE:

RESIDUAL AMOUNT DETECTOR FOR AUTOMATIC VENDING

**MACHINE** 

**PUBN-DATE:** 

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## **INVENTOR-INFORMATION:**

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APPL-NO:

JP06062170

APPL-DATE: March 8, 1994

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## **ABSTRACT:**

PURPOSE: To provide a residual amount detector for automatic vending machine capable of improving the efficiency of commodity replenishment by detecting the residual amount of commodities.

CONSTITUTION: At the time of sales operation, a spiral is rotated by a driving device so as to send a commodity at the end of a commodity carrier. An ultrasonic sensor 12 emits ultrasonic waves from an ultrasonic wave emitting part toward the last commodity housed in the spiral following the moving direction of the commodities moved with the rotation of the spiral and receive ultrasonic waves which comes after hitting the last sales commodity and being reflected there by an ultrasonic reception part. Then the residual amount detector 13 counts a time of period from the emitting of ultrasonic waves by the ultrasonic sensor 12 till the reception of its reflected waves by a time counting part 14 and detects the residual amount of commodity in a carrying-out member by obtaining the distance from the ultrasonic sensor 12 to the last sales commodity based on the time counted by the time counting part 14 by a residual amount detection part 15.

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